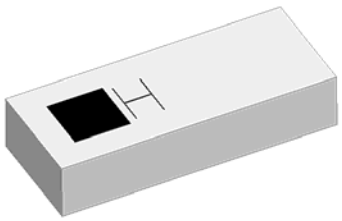
2.4GHz 5020 Chip Antenna: ANT5020R2400A1L1

Application:

WLAN, 802.11b/g, Bluetooth, etc…



Features

SMD, high reliability, ultra compact, Omni-directional…

Part number

ANT	5020	R	2400	A1	L1
(1)	(2)	(3)	(4)	(5)	(6)

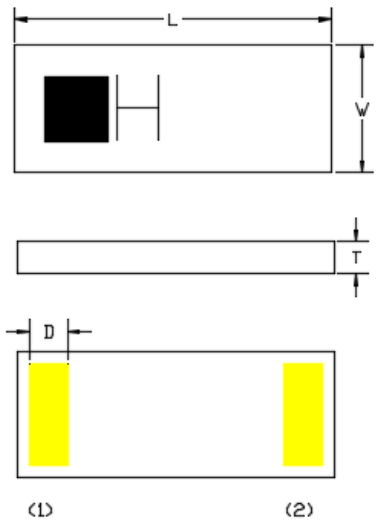
(1) Product Code	Chip Antenna
(2) Size Code	5.0x2.0mm
(3) Packing	Tape and reel
(4) Frequency	2.4GHz
(5) Series	A1
(6) Code	L1

Electrical Specification

Working Frequency Range	2400 ~2484 MHz
Peak Gain	1.3 dBi (Typ.)
Impedance	50 Ohm
VSWR	2.5 (Max)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Operation Temperature(℃)	-40~85℃

The specification is defined on HEK EVB.

Dimension and Terminal Configuration

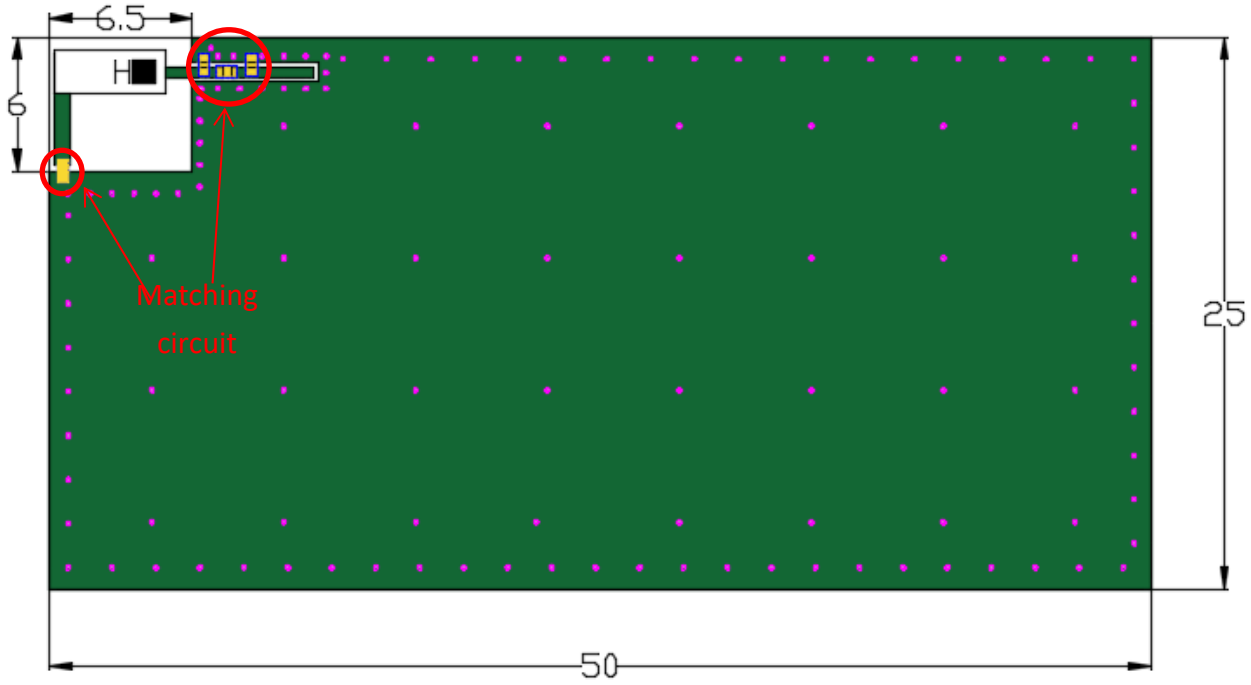


Dimension (mm)	
L	5.0+-0.15
W	2.0+-0.15
T	1.0+-0.10
D	0.6+-0.15

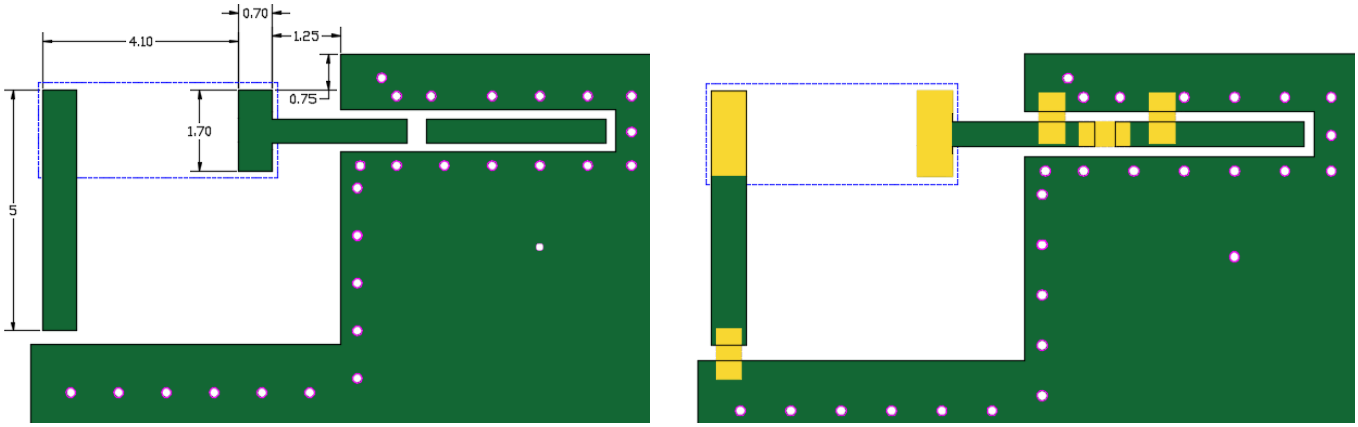
No.	Terminal Name
1	Feeding
2	Ground

Evaluation Board Reference

PCB Dimension



Antenna Layout Reference



Unit : mm

: Chip Antenna

: Land Pattern

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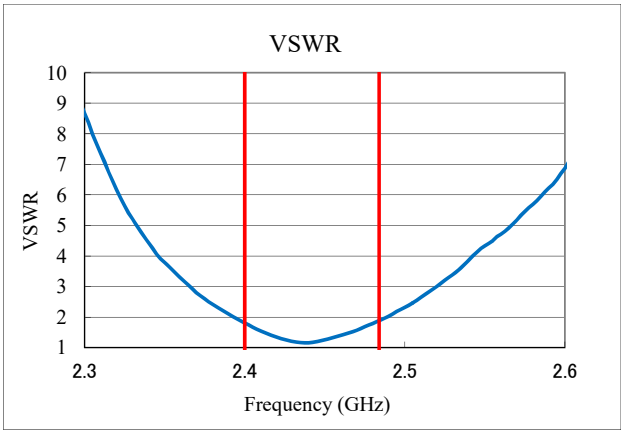
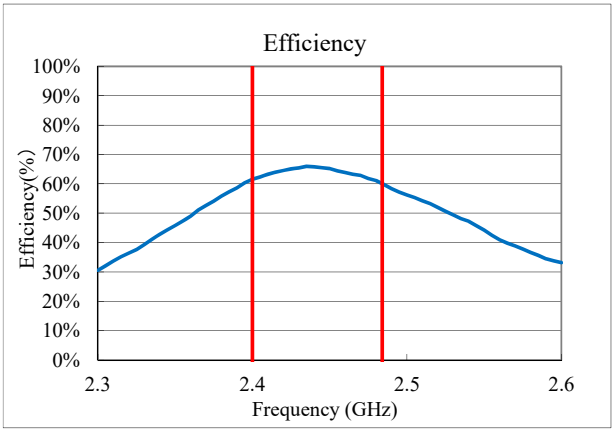
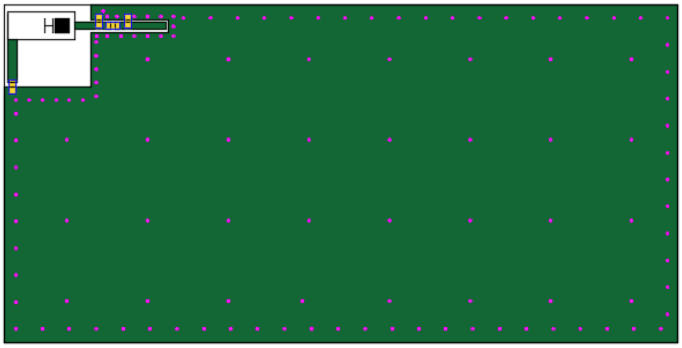
Electrical Characteristics

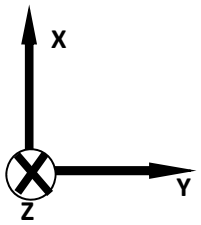
VSWR&Efficiency



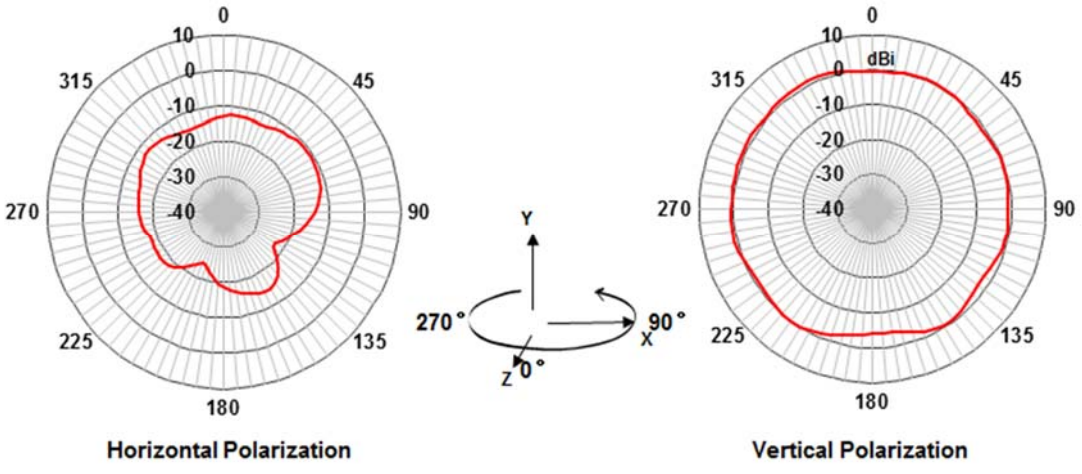


Radiation Pattern





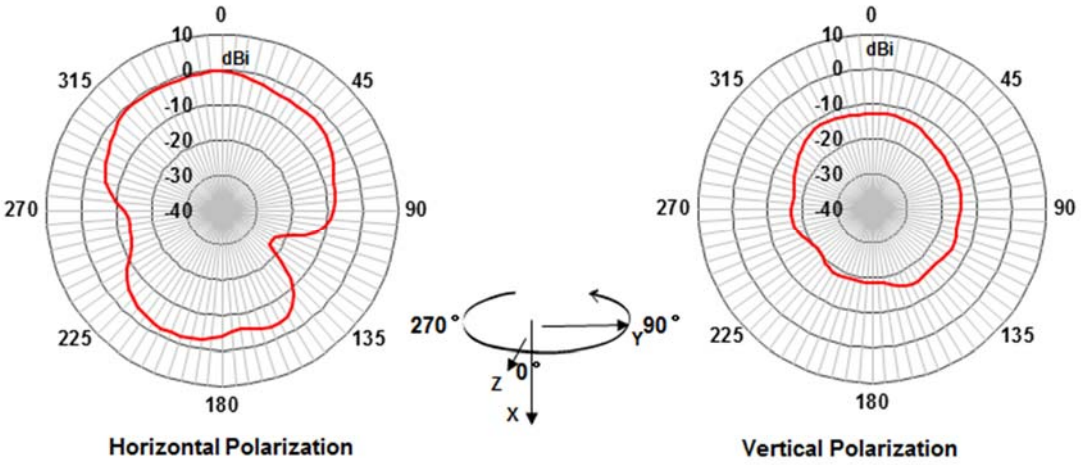
ZX-Plane



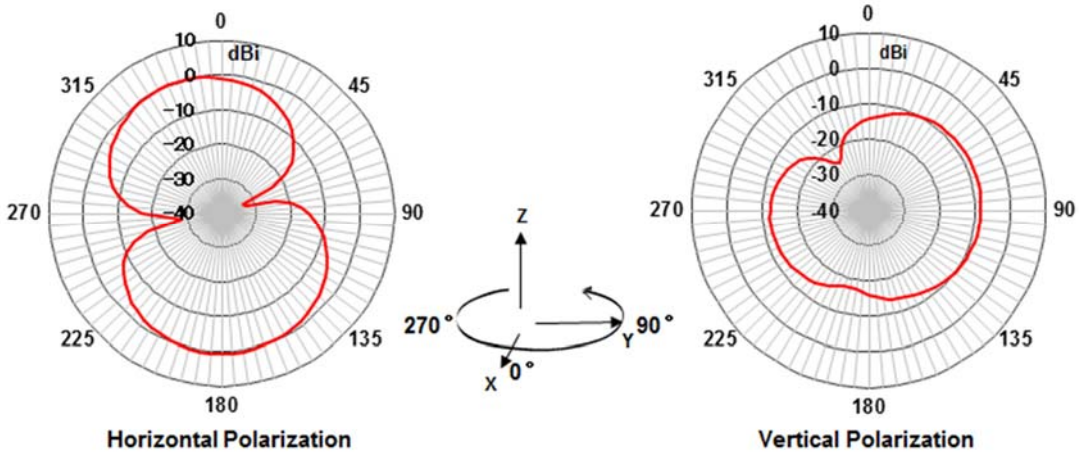
Horizontal Polarization

Vertical Polarization

ZY-Plane



XY-Plane



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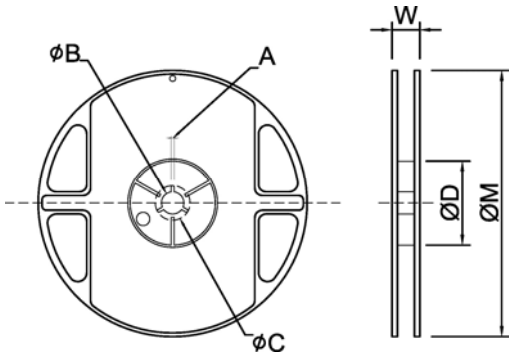
Taping Specifications

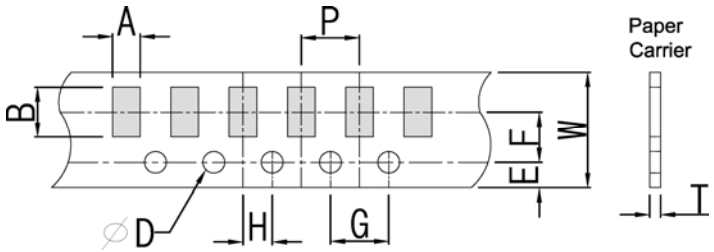
Reel and Taping Specification

Reel Specification



TYPE	SIZE		A	φB	φC	φD	W	φM
5020	7”	1K/Reel	2.0±0.5	13.0±1.0	21±1.0	67±1.0	16.5±2.0	178±2.0

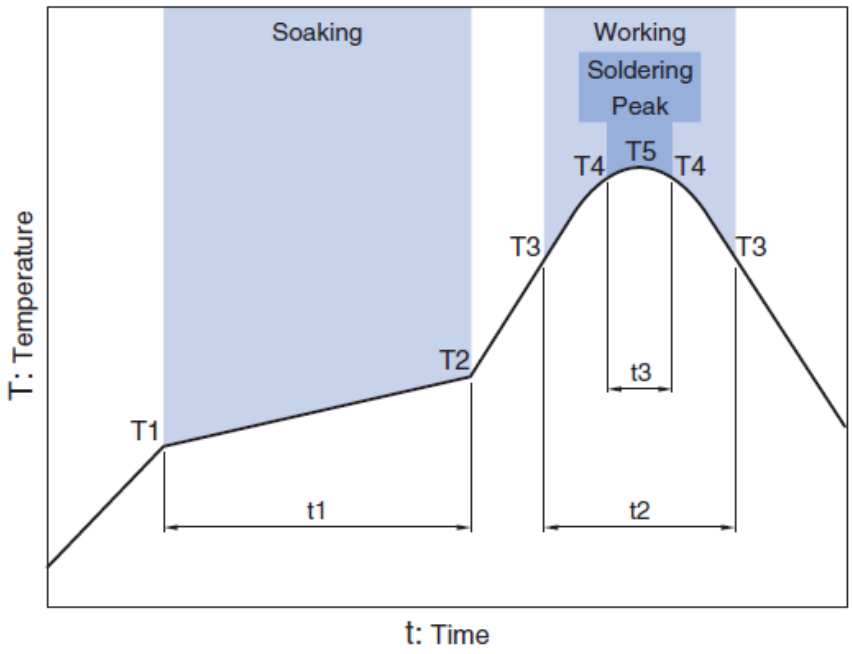
Taping Specification



Packaging	Type	A	B	W	E	F	G	H	T	φD	P
Paper Type	5020	2.30±0.20	5.30±0.20	12.0±0.20	1.75±0.10	5.5±0.05	4.0±0.10	2.0±0.05	0.30±0.10	1.50±0.10	10±0.1

Recommended Reflow Profile

Pb free solder



Soaking			Working		Soldering		Peak
Temp.		Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.

Revision History

Version	Date	Description
Ver.01	Apr.2023	New issue.

Apr.2023 Ver.01